

**BALSAMINACEAE.****IMPATIENS.**

**I. biflora** Walt. Moist soil, very common throughout.

**I. biflora** Walt., forma **albiflora** (Rand & Redfield) Weatherby. Edge of pool, Billerica (*C. A. Weatherby*, Aug. 12, 1911). See RHODORA xix. 115, 1917.

**RHAMNACEAE.****CEANOTHUS.**

**C. americanus** L. Dry open woods, common throughout.

**C. ovatus** Desf. Dry rocky and sandy soil; Andover, near Haggett's Pond (*Mrs. Belle P. Gowing*, June 18, 1888; *A. S. Pease*, June 4, 1904; *M. L. Fernald*, June 17, 1911); N. Chelmsford (*Mrs. A. R. Spalding*, June 14, 1898); Lowell (*Mrs. F. P. Spalding*, June 20, 1896).

**C. ovatus** Desf., var. **pubescens** T. & G. Shadyside Grove, Andover (*M. L. Fernald*, June 17, 1911); abundant in dry sandy soil, Lynnfield (*M. L. Fernald*, June 16, 1917).

**RHAMNUS.**

**R. CATHARTICA** L. Thickets and waste places, common.

**R. FRANGULA** L. Large colony in low ground near railway, Wakefield (*R. C. Bean*, June 13, 1915); several trees by stone wall, Concord (*Wm. Brewster*, June 27, 1918). See RHODORA xx. 204-5, 1918.

C. H. KNOWLTON } *Committee on*  
WALTER DEANE } *Local Flora.*

**DISCOVERY OF TRISETUM SPICATUM IN PENNSYLVANIA.**

HAROLD W. PRETZ.

It is only the collector that can fully appreciate the charm of field collecting with its varied experiences. Whatever else may be suggested by the circumstances surrounding the collection of *Trisetum spicatum* in Lehigh County, Pennsylvania, the writer is more than



ever convinced that it is a good rule to collect anything in the field that seems out of the ordinary.

On July 15, 1917, the writer and his companion Mr. Walter I. Mattern were on their way for a day's botanizing along the Blue Mountains when a sudden rain made it seem best to abandon this attractive trip. It was still raining lightly when it was decided that rather than return home a trip should be made on the tracks of the Lehigh Valley Railroad along the Lehigh River past a number of steep, shale slopes with outcropping masses of rock between Slatington and Treichler that on a number of occasions have furnished most entertaining and profitable botanizing. It was too wet to make it advisable, at least as far as comfort was concerned, to penetrate far into the water-soaked vegetation of the slopes, etc., so it was planned instead to give leisurely and thorough attention to the outcrops and such parts of the slope as were readily accessible from the tracks. The plan worked out successfully, for besides interesting general collections, there was discovered in this supposedly well known locality a small amount of *Woodsia ilvensis*, a rare fern in the county though known from four other stations, and *Dryopteris Dryopteris*, a still rarer fern previously collected only twice in the county.

It was in this same locality about a mile and three quarters southeast by south of Slatington while the writer was standing beside the tracks busy cleaning a plant for press that he chanced to see on the shale cliff beside him the dried stalks of a grass that he could not seem to recognize as anything he knew. A stroke or two with the botanical pick dislodged a small clump which dropped with a dull splash to the ground. Water-soaked, bedraggled and soiled by coal dirt it was certainly not an inviting specimen and the temptation to abandon it was strong. But then it was clearly unfamiliar so it was cleaned, put into press and taken along. Later when it turned up at the time the writer was determining his *Gramineae* of the season it looked little more inviting and was in such poor condition that no trouble was taken with it. It was merely sent along unnamed to the Academy of Natural Sciences in Philadelphia with the writer's usual contribution to the Philadelphia Botanical Club Herbarium for Mr. Bayard Long to identify. Mr. Long recognized it as *Trisetum spicatum* and, writing about it, suggested the future collection of better material. It was only then that the writer became aware of the importance of this plant.



On June 23d, 1918, another visit was made to this series of steep slopes. The outcrops and slopes were carefully scanned for *Trisetum spicatum* from the tracks without success until the place of the original collection was reached. Here the plant was found rather evenly distributed and quite abundant about the open outcrops of the rather short, steep part of the slope close to the tracks for perhaps the distance of a city block and between two moist springy places about the outcrops. The soil in which it grew was moist but that was because of the recent rain for the soil on the shelves where some grew was shallow and suggested normally dry soil. Some however did grow in the springy places or at least close to where moisture is the rule. It grew mostly on tiny shelves of the outcrops which are lower and less clifflike than some others of the series here and when growing on the tiny shelves but a few inches wide, or less in some cases, presented rather a striking appearance where it grew upright against the vertical face of the outcrop. Later in the season, on August 18, 1918, the entire distance of about five miles between Treichler and Slatington was covered and the outcrops viewed from the tracks but the grass was seen nowhere on them excepting at the original station.

Though found only within a limited area the plant is certainly well distributed and is apparently quite indigenous. It is hardly possible to say whether or not it grows or has grown on original outcrops. Some certainly now grows on outcrops close to the marks of the drills used in blasting out the railroad roadway many years ago but there are many original outcrops on these slopes, some of them adjacent to the tracks, that appear to have been little if at all disturbed. Often these outcrops adjacent to the railroad are so well occupied by a generally well balanced association of native plants that it may easily become a matter of speculation as to what may or may not have been original outcrops. *Tiarella cordifolia* has been collected as close to the tracks as the *Trisetum* surely no more than the distance of a city block or two away, and there are found on the slopes close by, as well as on those of the whole series between Slatington and Treichler, such species as *Acer pennsylvanicum*, *Acer spicatum*, *Cornus rugosa*, *Ilex monticola*, *Lonicera canadensis* and *Prunus pennsylvanica* — all of which are more normally a strong element in the association found in the higher mountains northward. *Sambucus racemosa* and *Cinna latifolia* are found on the next series of cliffs and steep slopes about a mile and a half further down the river and still other species might



be mentioned to show the high percentage of northern types found in the general association of this series of slopes which, paralleling as they do the course of the Lehigh river, face either north, northeast or northwest. It need not be surprising to find a plant of such a general northern range as *Trisetum spicatum* occurring with this type of association.

As far as the writer knows *Trisetum spicatum* has not previously been collected or reported as occurring between New York and North Carolina. Upon inquiry by Mr. Bayard Long, Prof. M. L. Fernald in a reply — kindly furnished to the writer by Mr. Long — has written, "*Trisetum spicatum*, var. *molle*<sup>1</sup> we do not have from Pennsylvania but here are the records from New York and from North Carolina; banks of Black River, Watertown, New York, *Crawe*, *William-Boott*, et al.; Little Falls, Herkimer County, *A. Gray*; Roan Mt., No. Carolina, *Buckley*, *Scribner*. It must be somewhere along the way between the Mohawk Valley and North Carolina." In reply to an inquiry concerning any additional records of New York and southward that may have come to his attention, Prof. A. S. Hitchcock has kindly furnished the following records from the collections at Washington; Lyons Falls, Lewis Co., *Haberer* 3062; Jefferson Co., *Sartwell*; Ausable Chasm, *Knowlton* in 1883; Oneida Lake, Lenox, Madison Co., *Haberer* 3276; Trenton Falls, Herkimer Co., *Haberer* 1292 — all in New York. In reply to a similar inquiry of the New York Botanical Garden, Dr. J. K. Small has kindly furnished in addition to the first mentioned above the following records from the collections there; near Montgomery, Orange County, New York, *Wm. Crabtree*; Greece, Monroe County, New York, *Dr. Bradley*. The records thus made available through inquiry have shown no known stations for the species south of New York state excepting that of the North Carolina station.

It may be interesting to observe that all excepting one of the stations recorded for New York are scattered north of a line drawn centrally across the State at about 43° latitude and that this one exception, the station for Orange county, is quite well away from the rest and not greatly distant from the boundary of New Jersey. This Orange county, New York, station would seem to be more nearly

<sup>1</sup> The material collected by the writer is the plant Prof. Fernald (*RHODORA* 18: 195. 1916) regards as *Trisetum spicatum* var. *molle* which represents the most southern of the several varieties of *Trisetum spicatum* distinguished by him.



related naturally to the next nearest station northward at Salisbury, Connecticut<sup>1</sup> than to the other New York stations. These two stations together with that of the Lehigh county, Pennsylvania, station<sup>2</sup> occur approximately in the same relation to the hills of the Older Appalachian Mountain Ranges and Appalachian Valley, large physiographic features variously named locally, and would seem to suggest that, if a natural trend of distribution for the species southward from the region of its more general occurrence be sought, the plant may be found to extend away from, rather than along, the tops of the higher mountains. Though this is not usually the case with northern types extending southward along the mountains it would appear to agree very well with the general distribution which Prof. Fernald, in his revision of the species, has noted for *Trisetum spicatum* var. *molle* which he has shown is found "in more temperate areas of the Canadian and Transition regions." Information concerning the exact location of the plant at Roan Mountain, North Carolina, which physiographically may be considered as a part of the Older Appalachian Mountain Ranges, is not available but even should it occur with other northern plants known to grow on its summit at an elevation of 6313 feet it is only what may be expected of northern plants so far south. Since the plant through its discovery in Pennsylvania has been shown, as Prof. Fernald predicted, to be "somewhere along the way between the Mohawk Valley and North Carolina," may it not be still further suggested that future discoveries of the plant southward along the mountains may probably be found to occur along the Great Appalachian Valley or, especially southward, in close relation to the Older Appalachian Mountain Ranges.

ALLENTOWN, PENNSYLVANIA.

<sup>1</sup> Flora of the vicinity of New York, Norman Taylor, 1915.

<sup>2</sup> Collected July 15, 1917, no. 8910, on open shale outcrops of the Martinsburg formation along the Lehigh River in Lehigh County, Pennsylvania, at an elevation of about 260 feet and beside the tracks of the Lehigh Valley Railroad about 1½ miles southeast by south of Slatington station. June 23, 1918, no. 9390. Material of this second collection has been placed in the herbarium of the U. S. National Museum at Washington, D. C., in the Gray Herbarium, Harvard University, Cambridge, Massachusetts, and at the New York Botanical Garden, Bronx Park, New York City.